

"... dedicated to the study, appreciation, and conservation of the native flora and natural communities of Illinois."



Spider lilies (*Hymenocallis occidentalis*) at night.
September 2022. Photo: Travis Neal.

Botany in Illinois continues to be exciting! The use of [iNaturalist](#), among other things, has contributed to more people looking at plants in the wild and has resulted in several state records. In this issue, I present a species newly discovered in Illinois, *Aronia arbutifolia*, the red chokeberry. See the article on page 6.

✂ Chris Benda, Editor

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Message from the President



Dear INPS Community,

Happy autumn!

It is hard to believe that most of 2022 is already behind us. INPS members have been busy holding and attending field trips, workshops, and native plant sales all year long. Planning is underway for next year's Annual Gathering, which will be hosted by the Central

Chapter (date TBD). The state governing board has begun work on a code of conduct for INPS, which we hope helps us maintain an inclusive and welcoming environment while also holding our community to high standards of conduct.

This is a good time to renew your membership for 2023. This can be easily done on our website. We strongly suggest that you renew (or join) [online](#) for the fastest processing time.

I am coming to the end of my term as President of INPS. I am moving out of state for a new job, and I will miss the wonderful community of native plant lovers we have in our society. In several months we will hold an election for the state governing board positions that are open, and if you would like to get involved by running for a seat, please [get in touch](#).

Happy botanizing!

Emily Dangremond

President INPS

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Victoria York

INPS News

INPS in the News: Monarchs and the Mother Road

The Illinois State Fairgrounds "Route 66 Experience" is under development inside the fairgrounds at the southeast corner, just west of Peoria Road and north of Gate 2 on Sangamon Avenue. The "Route 66 Experience" is a one-acre area being designed as a walk through a miniature version of Route 66 and is targeted for completion in June 2023. It will be open year-round as a tourist destination, accessible by entering the main gate.

This area of the fairgrounds was previously the Department of Agriculture's "Farmer's Little Helpers" area. Four years ago, there were four raised beds planted with corn and soybeans. Now these beds are planted with more than 50 species of native plants, including several species of milkweed, which are essential for monarchs. Grants from the Illinois Native Plant Society and the Springfield Civic Garden Club helped to make this possible. Read the complete *Illinois Times* article [online](#).

INPS 2023 Grant Applications Available in November

Students, community scientists, and conservation groups are invited to consider applying for an INPS Research Grant for up to \$2,500 to fund one-year projects. This grant is for research studies on Illinois native plants such as life history, reproductive biology, demography, genetics, comparative site inventories, community ecology; research on threats to native plants and communities, such as invasive species, are acceptable. Laboratory research on native plants is eligible, as well as projects focused on research relating to education about or restoration of native plants or communities.

INPS will continue its second grant for 2023: the Survey Grant. This grant for up to \$5,000 will fund searches for Illinois Endangered, Threatened, or several rare plant species for which current data is inadequate to assess their status and for which field surveys and recovery recommendations are needed. INPS worked with the Illinois Department of Natural Resources to develop a priority list of species for the surveys. Experienced

botanical field surveyors, either independent or associated with an institution, are invited to apply for this grant. Partnerships are encouraged.

Full grant application details and forms will be posted online by late November. Check the INPS Grants [webpage](#) for updates. Applications are due by January 31, 2023. Awards will be announced by March 31, 2023.

Honorary Lifetime Membership Awarded to Dr. Robert Mohlenbrock

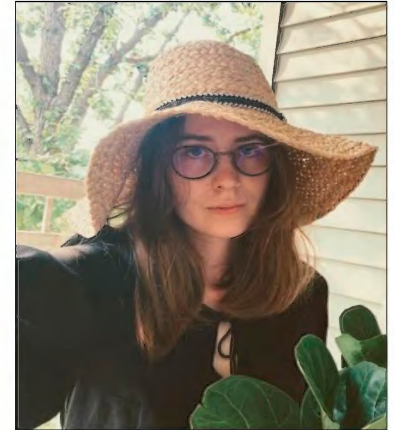
At the September 2022 board meeting, the INPS board voted to grant Dr. Robert Mohlenbrock an honorary lifetime membership to INPS. Dr. Mohlenbrock created INPS with his son Mark and others back in 1982. Along with his monumental contribution to botany in Illinois and beyond, Dr. Mohlenbrock continues to botanize near his home in southern Illinois and is making new discoveries! While his mobility is reduced, his son Trent has been driving him around on old Forest Service roads, and on one of which he found a new population of the state endangered *Heteranthera reniformis* (kidney-leaf mud plantain). I am conducting a review of this species as part of an INPS grant, so I went to check it out myself (see photo below). I also try to meet with Dr. Mohlenbrock every couple months at his home, where we discuss plants and our recent finds. Also, see this welcome [video](#) by Dr. Mohlenbrock at the Rothrock Sedge Symposium held last summer. Dr. Mohlenbrock was also honored by his hometown of Murphysboro and received a star on their “walk of fame,” as well as a mural in downtown. Here he is pictured with the newly unveiled mural, just before his 91st birthday last September. By Chris Benda.



Memorial for a Young Naturalist, Lydia Davidsmeier

Over the summer, INPS surprisingly received 48 donations in honor of Lydia Davidsmeier, who died tragically on a hiking expedition. Although Lydia was not an INPS member, her love of nature shone through everything she did as demonstrated so well in the obituary quoted below. (The obituary requested that donations be made to INPS.)

INPS is immensely grateful for this outpouring of support for Lydia and her love of the natural world, which has been kindly directed toward our own efforts to preserve and protect native plants.



Lydia Josephine Davidsmeier died while hiking in the Rocky Mountains on May 19, 2022. She was surrounded by natural beauty and with beloved friends.

She celebrated 21 years on this earth, and her larger-than-life free spirit was a gift and blessing to the lives that she touched. Lydia planned to add many more travels to her new passport, starting with a study abroad trip in June to experience and study the Arctic summer in Sweden. Her earthly travels may have been cut short, but Lydia was intentional about living for each moment.

Lydia was well-known in the community, both for her love of nature and lending a helping hand. She was a lifelong member of Shiloh Cumberland Presbyterian Church, volunteered for many civic organizations along with participating in band, 4-H, volleyball, soccer and recently, fishing for squirrels in Urbana. Lydia was inducted into the National Honor Society while attending Beardstown High School. After graduating from Beardstown High School Class of 2019, she continued her education at University of Illinois majoring in Earth, Society & Environmental Sustainability, and minoring in Horticulture. Lydia was involved in many social and environmental justice organizations, the Wesley Foundation Student Center, and she was employed by Common Ground Food Co-op. She was as a former social work intern at University of Illinois Women's Resource Center and during the past few summers, Lydia worked with the Summer Migrant Program at Beardstown Schools and volunteered with the Beardstown Houston Memorial Library summer reading program.

She was devoted to all things natural and wild: plants, animals, butterflies, owls, and anything that needed to thrive and be free. She wanted to make the world a better place, in as many ways as possible. She was passionate about environmental issues. She loved cats, art, and baking banana bread. She knew no stranger and made time to visit and befriend many different people along her path.

Lydia's complete obituary is available [online](#). Donors to INPS in her honor include:

Joanne Anderson
Mary Elaine Bader
Loraine Brasel
Ellen Brewer
Tom & Lisa Buhlig
BJ & Jennifer Busby
Jose Cortez
Rita Crosby
Steve & Nancy Dennis
Lois & John Dotzert
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Amy Sommers
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Cynthia Swartz
Janet Teegarden

Becky Virgin
Amanda Wellencamp
Paula M. Woods

***Erigenia* Online**

All back issues of the INPS journal, *Erigenia*, are now available [online](#), as well as currently published articles.

INPS Chapter News

For information about each chapter, follow the links on our Chapters [webpage](#).

Hidden in Plain Sight – Part 2 – *Aronia arbutifolia*, Red Chokeberry

By Chris Benda

In the last issue of *The Harbinger* (summer 2022), I profiled the state record discovery of the Florida bellwort, *Uvularia floridana*, hidden in plain sight along the Heron Pond trail in Johnson County. In part 2 of this series, I highlight the state record discovery of another plant hidden in plain sight, *Aronia arbutifolia*, called red chokeberry.



Aronia arbutifolia fruit



Aronia arbutifolia leaf

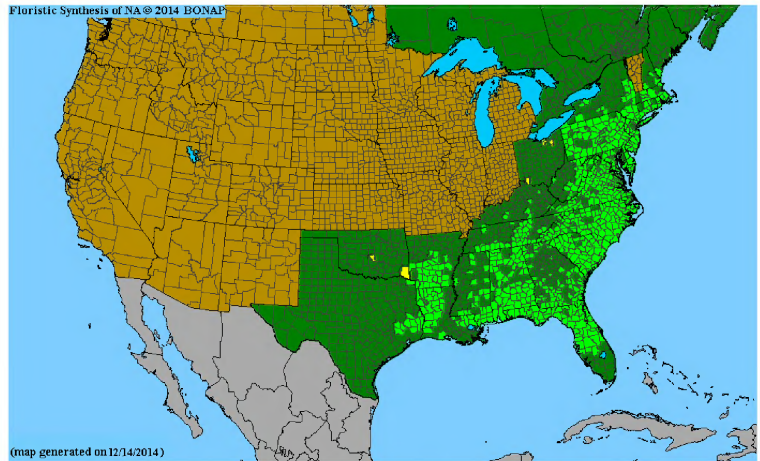


Aronia arbutifolia leaf underside

In June of 2022, while teaching the Flora of Southern Illinois, a 400-level course in the plant biology program at Southern Illinois University, I noticed a woody plant with many stems growing on a sandstone bluff. The class was sitting down on the trail leading up to Shelter One Bluff at Giant City State Park. This area is directly across from the popular Trillium Trail within the Fern Rocks Nature Preserve and is a popular destination for rock climbing. I walked over to look at the plant, which appeared to be an *Aronia* based on the dark glandular

trichomes along the leaf veins on the upper surface of the leaf. However, only one *Aronia* is currently known from southern Illinois, *Aronia melanocarpa*, and it is quite rare, extant at just 2 sites, one in Johnson County and one in Saline County. The *Aronia* I was looking at was clearly not that, as it was densely pubescent on all surfaces: leaves, twigs, and fruit. I didn't want to hold up the instruction of the Flora class, so I shrugged my shoulders and continued teaching.

I couldn't sleep that night, I lay awake in bed wondering what that plant was, so the next day I returned to the site and took some photos. Nothing in the local flora guides fit the plant I saw so I went to another source. Often when I have plants I can't figure out, I post photos of them on [iNaturalist](https://www.inaturalist.org/) and see what other botanists think. My friend tagged an observer he knew that was proficient with this group and she suggested *Aronia arbutifolia*. I had not heard of that species before.



Map courtesy of Biota of North America Program (BONAP)

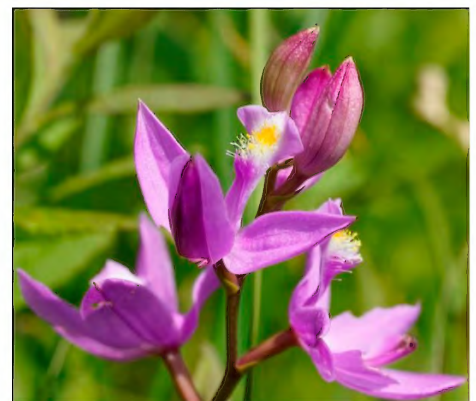
Aronia arbutifolia is currently known from states farther south and east of Illinois. A member of the Rose family, the edible fruits are dispersed by birds. So, it appears possible that this occurrence was spread by birds, however, not recently, as many mature individuals are present. It just goes to show that new observations exist to stumble upon and this addition to the flora of Illinois is a notable find.

A Fen-tastical Quest for Rare Plants

By Brian Charles, Scientific Specialist in Botany at the Illinois Natural History Survey

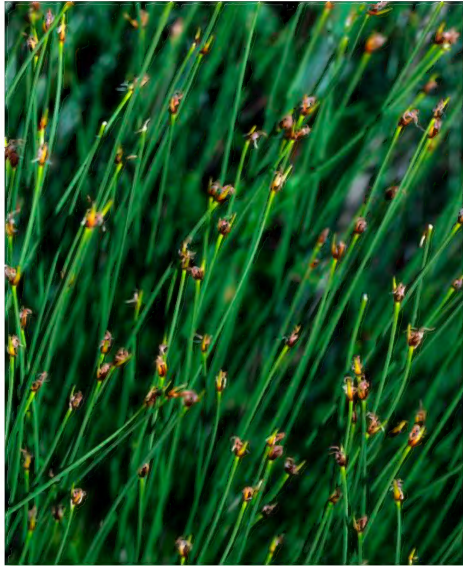
The distant sound of shrieks would usually be a cause for concern; however, in a group of seasoned botanists, it usually means one thing: we found it! It is a sultry day in late June and I am looking for historic plant records, which are observations of plants that have either not been relocated or searched for in over 10 years, usually more. I am with a group of botanists at a magnificent fen in far northern Illinois. We have already seen purple pitcher plant (*Sarracenia purpurea*), grass pink orchid (*Calopogon tuberosus*), and flatleaf bladderwort (*Utricularia intermedia*) scattered throughout the fen.

I carefully leapfrog through the springy *Carex stricta* and *Carex aquatilis* hummocks. At an opening, I take a cautious step forward. Not cautious enough apparently, as my body sinks to my chest under the floating mat. The pleasantly cool fen water rushes over me and I am suddenly very glad I didn't wear waders. I laugh and hoist myself up. I must continue the quest!



Grass pink orchid (*Calopogon tuberosus*)

The potential discovery has my heart racing. When I arrive, Ken Klick, the Lake County Forest Preserves botanist, points down at what we were looking for: tufted bulrush (*Trichophorum caespitosum*). This species



Tufted bulrush (*Trichophorum caespitosum*)

has not been seen at this location since 1965, and is only present at one other site in Illinois. We have over 3,100 records of state listed plants, so visiting all of these routinely is impossible. Many slip through the cracks, or are quite literally growing in them on cliffsides that are nearly impossible to access. Luckily, with the help of groups such as Plants of Concern, not only are many more records revisited frequently, many new records are found. This is essential for assessing the status of plants in Illinois, as many species only have a few locations throughout the state, and monitoring these helps us prioritize protection and management for the species that need it most.

Soon, more shrieks of excitement rise up from the fen. There are hundreds of mud sedge (*Carex limosa*), another species which was only recently rediscovered in Illinois. Their pendant perigynia are bluish-green and glow like subtle bioluminescence in the marsh. They are like Anglerfish of the plant world, luring me deeper into the fen until it swallows me whole again. Thankfully this is an obsession I am glad to let consume me.

Carex Corner #13: Drooper *Carex limosa*

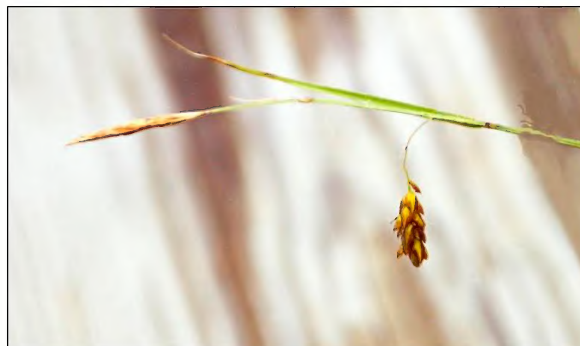
By Linda Curtis aka Lindaeus

Sedges with drooping or dangling spikes can be found in every plant community, including mud flats around lakes and floating mats in marshes and lake shores.

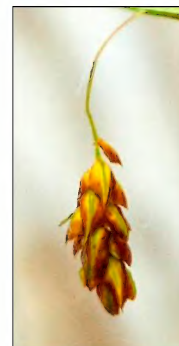
One rare sedge, seldom seen, is little *Carex limosa* L., a small but beautiful sedge with 1-3 dangling spikes of velvety perigynia covered by russet-bronzy tight-fitting scales. The plush “seed sacs” are papillose with tiny epidermal bumps so appear velvety. Instead of the name velvet sedge, it has the awful common name of mud sedge because it grows in muddy places, in soils often referred to as muck. Yet, any common name that refers to a specific habitat is a good thing as it helps in its identification. While some species grow only in sandy soils, others only grow in other soil types with different chemistry and acidity or alkalinity such limestone-based calcareous soils.

Botany students have a soils lab in which they note the color of soils and finger-touch samples of soils of peat, muck, clay, silt, and sand, sliding a dab between their thumb and forefinger to find the texture.

Afterward, a sample is taken to view under their



***Carex limosa* spike, Turner Lake bog**



Seedhead



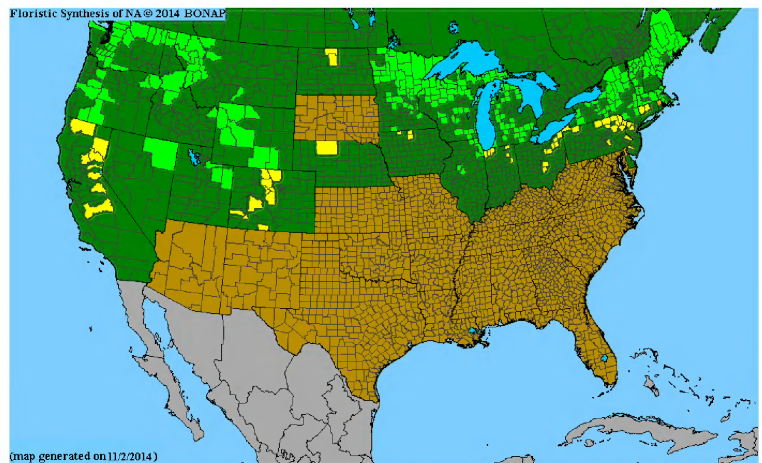
Sac papillose

microscopes. Muck is a sticky black-brown gooey soil and is dangerous, known for trapping cattle and deer around ponds where they drink.

Both muck and peat are the soils that mud sedge grows over, not into, on the surface as runners or rhizomes. Mud sedge is a partially correct name as it grows on floating bog and lake mats that may be fibrous peat now, but will decay eventually to muck. This “running sedge” has yellow fuzzy rhizomes that grow in a community of floaters. To see them requires a “botany gaze” from a boat or boardwalk, even with binoculars. Birds, such as coots, walk across the floating mats, even over lily pads, and feed upon the spikes in a snapping gulp. The achene inside each enveloping perigynium is protein rich.

Mud sedge grows in six counties in Illinois. In Lake County, look on the lakeshore mats of Turner Lake Bog and Mud Lake in the Chain O’ Lakes State Park. Sphagnum moss often associates with mud sedge and is a clue to stop and stare when looking for this small sedge.

Also known as mud sedge in New England and Canada, it is also rare or, due to its unreachable habitat, under reported. Its wiry thin leaves are only 1-2 mm wide, rising from the yellow fuzzy rhizomes. The erect seed heads have few dangling spikes with 10-20 small blunt-beaked sacs, only 2-4 mm long, and covered by russet-bronzy scales, enjoyable under magnification. Easily overlooked, a sight image viewed ahead of the field trip will help spot it in the plant mass.



Map courtesy of Biota of North America Program (BONAP)

Linnaeus, the father of taxonomy, named C. limosa. The author’s pseudonym, Lindaeus, is a tribute as she felt a kinship when she visited the home and herbarium of Linnaeus in Hammarby, Sweden, now a museum of the University of Uppsala. C. limosa is the cover photo of her book Bog-fen Carex.

Surveys for American Snowbell Bush and Kidney-Leaf Mud Plantain

By Chris Benda

One aspect that makes Illinois botanically interesting is the latitudinal extent of the state. Northern Illinois is the southern extent of many plant species more common in areas to the north and southern Illinois is the northern extent of many species more common in areas to the south. This phenomenon accounts for much of the plant diversity in Illinois, but one implication of this fact is that as the climate warms and species migrate north, rare plants in northern Illinois could become rarer, while rare plants in southern Illinois could become more common.

The Illinois Native Plant Society (INPS), in conjunction with the Illinois Department of Natural Resources (IDNR), seeks to understand through their survey grant program the current distribution of state listed plant species, particularly those with many historical occurrences. An occurrence is considered historical when it has not been updated in more than 10 years. Two species that fit this criterion are American snowbell bush (*Styrax*

americanus) and kidney-leaf mud plantain (*Heteranthera reniformis*). My INPS survey grant sought to assess the status of these species in Illinois by updating all the known occurrences for each.

American snowbell bush is a shrub that grows in swamps and floodplain forests, mainly in extreme southern Illinois, but also with occurrences that extend north up the Wabash River valley in the eastern part of the state, as well as disjunct populations in Kankakee County. It has alternate leaves that typically have an entire margin, but sometimes the leaves have small, scattered teeth. It often grows in large clumps, with many reproductive and sterile stems occurring together.

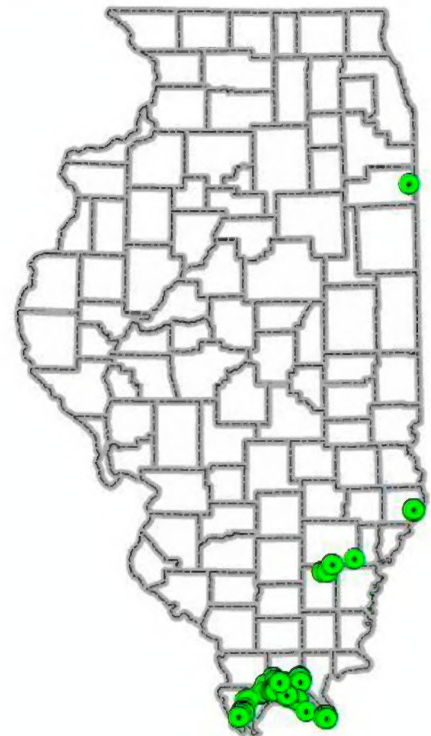
The IDNR natural heritage database contains 23 Element of Occurrence (EO) records that represent 76 polygons at 23 sites in 11 counties (Alexander, Crawford, Hamilton, Johnson, Kankakee, Lawrence, Massac, Pope, Pulaski, Union, and Wayne). There were 5 privately owned sites that I was not able to survey because I could not get permission from the landowners. There were 3 polygons I did not search because aerial photography showed the swamps had been cleared for farming. There was one site that I did not visit because Illinois Natural History Survey (INHS) botanists submitted data for this subpopulation in 2019. Otherwise, nearly every one of the 76 previously known polygons was surveyed.

In total, I counted 13,871 stems of American snowbell bush representing 30 EOs with 47 subpopulations in 10 counties and this number does not include 2 sites where so many stems were observed the total was only estimated. I was not able to verify American snowbell bush as extant in Crawford County because I was denied access by the landowner; otherwise it was verified in all the counties it was known previously according to the IDNR database. The Biota of North America Program ([BONAP](#)) has American snowbell bush mapped in Clinton and Jackson counties as well, but I could not find any information about potential occurrences in those counties. Matt Tomlinson, Abel Kinser, Katie Kucera, Jared Gorrell, Paul Marcum, Cassi Saari, and I are the only observers on [iNaturalist](#) with verifiable *American Snowbell* observations in Illinois and I verified all of their observations as well.

In addition to the previously known occurrences, I fortuitously encountered 1,024 stems of American snowbell bush at 8 new sites, representing 11 new subpopulations. An astonishing 23% (11/47) of the American snowbell bush subpopulations monitored during the survey are new to the IDNR database. It's also very likely that more American snowbell bush occurs in the swamps of southern



The author and *Styrax americanus*



Illinois, as a lot of potential habitat exists that was not surveyed. Thus, a strong case can be made for the delisting of this species due to its recovery in the state.

Although a large number of stems of American snowbell bush were counted during the survey, reproductive individuals were mostly limited to sites with large populations and represented a small proportion of stems encountered overall (17.4%). However, at several sites in southern Pope County, many clumps with hundreds of stems each were encountered. Areas within the Cache River State Natural Area and Cypress Creek National Wildlife Refuge had large populations, as well as Embarras River Bottoms State Habitat Area, Grantsburg Swamp Ecological Area, and Horseshoe Lake Conservation Area. IDNR Forester Jenny Lesko discovered several new populations on private land and at one site in Hamilton County, American snowbell bush was the dominant understory shrub, with thousands of stems occurring in the remote floodplain forest. It occurred with county record occurrences of both Virginia sweetspire (*Itea virginica*) and the state endangered swollen sedge (*Carex intumescens*). Also, 30 subpopulations of 9 other state listed plant species were monitored during the surveys and 15 of these are new to the IDNR database.

Other common herbaceous associates with American snowbell bush include white swamp milkweed (*Asclepias perennis*), false nettle (*Boehmeria cylindrica*), various sedges (*Carex* spp.), inland oats (*Chasmanthium latifolium*), rose mallow (*Hibiscus* spp.) rice cut grass (*Leersia* spp.), lizard's tail (*Saururus cernuus*), maddog skullcap (*Scutellaria lateriflora*), and marsh St. Johnswort (*Triadenum walteri*). The canopy of the swamps where American snowbell bush occurs is composed of red maple (*Acer rubrum*), water tupelo (*Nyssa aquatica*), various oaks (*Quercus* spp.), and bald cypress (*Taxodium distichum*). Common invasive species encountered include Japanese chaff flower (*Achyranthes japonica*), moneywort (*Lysimachia nummularia*), Japanese stiltgrass (*Microstegium vinimeum*), and multiflora rose (*Rosa multiflora*). Rare species that associate with American snowbell bush include cypress-knee sedge (*Carex decomposita*), swollen sedge (*Carex intumescens*), false hop sedge (*Carex lupuliformis*), blue jasmine (*Clematis crispa*), hydrolea (*Hydrolea uniflora*), creeping loosestrife (*Lysimachia radicans*), water elm (*Planera aquatica*), and tubercled orchid (*Platanthera flava* var. *flava*). There is even one site where I found American snowbell bush and kidney-leaf mudplantain growing together!



American snowbell bush (*Styrax americanus*) in bloom and in fruit

American snowbell bush blooms in mid-May and the gorgeous and conspicuous flowers make them easy to spot this time of year, plus one can delight in their beauty and fragrance. However, a low percentage of stems typically produce flowers so one needs to develop a search image for the vegetative plants. This shrub often occurs in clumps with many stems that are brown to gray in appearance. The leaves are alternate and entire (sometimes with bristle-like teeth along the edges). The small, round fruit are also useful for identification. Perhaps counterintuitively, autumn is also a fine time to search for American snowbell bush, as the leaves turn yellow, contrasting with the green leaves of buttonbush (*Cephalanthus occidentalis*).

A shrub that looks most similar to American snowbell bush is spicebush (*Lindera benzoin*). However, surveys show that spicebush occurs in slightly drier soil and rarely would snowbell bush be growing in proximity. Surprisingly, green ash (*Fraxinus pennsylvanica*) often results in false positive identifications from a distance, which one would think would be unlikely, since ash leaves are opposite and compound, while American snowbell bush leaves are alternate and simple. Other shrubs that catch the eye while surveying for American snowbell bush include possum haw (*Ilex decidua*), Virginia sweetspire (*Itea virginica*), hackberry and sugarberry (*Celtis* spp.), dogwoods (*Cornus* spp.), and swamp privet (*Forestiera acuminata*), so this often requires a few extra steps for a closer look, at which point leaf shape, leaf arrangement, and leaf margin help the observer determine the identity of the shrub in question.

As part of this INPS survey grant, I also surveyed for kidney-leaf mud plantain (*Heteranthera reniformis*) in Illinois. Prior to the survey, very little was known about current distribution of kidney-leaf mud plantain in the state. There are 5 historical occurrences in the IDNR database, in Alexander, Union, and Pope counties, with the most recent observation being from 1999. Voucher specimens were also found at the INHS herbarium representing populations in Lawrence, St. Clair, and Wabash counties, but the specimens are over 100 years old. None of those counties were surveyed for this species because of the lack of public land and it was unclear where to search for these occurrences.

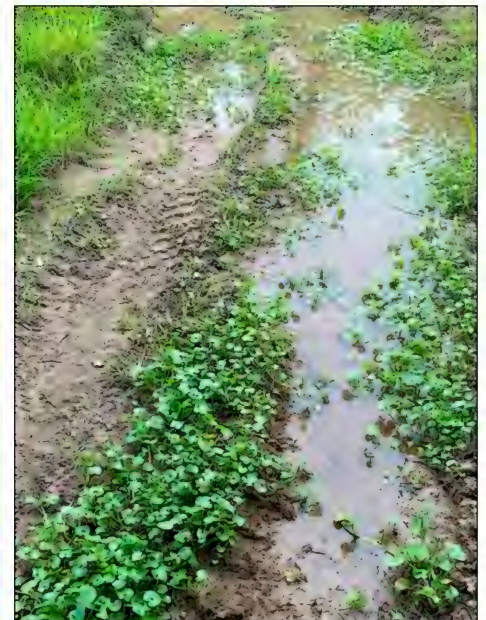
Kidney-leaf mud plantain has round, reniform (kidney-shaped) leaves, hence the name. The leaves are small, often variegated, and they grow on exposed mud flats, typically in full sun. This species is an annual and has white flowers, with a green throat on the corolla.



Heteranthera reniformis



Heteranthera missouriensis



Thriving in damaged habitat.

A similar species is Missouri mud plantain (*Heteranthera missouriensis*, syn. *Heteranthera multiflora*), which also has round, reniform leaves. However, the leaves are larger, very glossy, not variegated, and about as long as wide, whereas kidney-leaf mud plantain has leaves that are wider than they are long. Additionally, the flowers of Missouri mud plantain are purple with a dark purple throat on the corolla.

My surveys in 2021 determined that none of the 5 historical occurrences of kidney-leaf mud plantain were extant, but in 2022 I found plants at 2 of the historical sites, one in Alexander County and one in Pope County. It is likely that 2 of the other 3 EOs are erroneous (a different site in Alexander County and one in Union

County) and another occurrence in Union County is verifiably erroneous, as the specimen has been annotated as *Heteranthera missouriensis*. However, due to my extensive travel throughout southern Illinois, I discovered 6 new populations. If not for these discoveries, and checking the historical sites again in 2022, this species would no longer be considered present in the state. This is one reason why surveys should span multiple years, especially for plants that are annuals. In total, I documented a few thousand plants in 10 subpopulations at 8 sites in 2 counties.

Five new populations were discovered in Pope County and somewhat surprisingly, nearly all were located in muddy, rutted out areas caused by illegal off-road traffic along old access roads. One would not expect a state endangered species to occur in such damaged habitat; however, the literature suggests that wet ditches and other disturbed wet areas with exposed mud and full sun are the preferred habitat for this species. Another population was discovered in Alexander County, which consisted of thousands of plants occurring in an oxbow wetland along the Cache River near Unity, Illinois. Abel Kinser and I are the only observers on iNaturalist with verifiable *Heteranthera reniformis* [observations](#) in Illinois.

Thanks to Abel Kinser, Nick Seaton, Travis Neal, Susan Barry, Katherine Accuttera, Bobby Samat, Jenny Lesko, Jared Gorrell, Dr. David Barfknecht, John Palis, Karen Mangan, John Schwegman, Fran Harty, Dr. Robert Mohlenbrock, Dr. John Taft, and Paul Marcum for help with the surveys and to the Illinois Native Plant Society for funding this survey grant.

Other News, Blogs, Publications, & Web Links

New Invasive Plants Guide Available Online

A new illustrated guide to *Invasive Plants of the Chicago Region* has been compiled and made available [online](#) by Robert Sullivan, Argonne National Laboratory (Retired) and Henrietta Saunders, University of Illinois Master Naturalist, with the help of six local subject matter experts with extensive knowledge of plants and ecosystems of the Chicago region as posing the greatest threat to regional ecosystems. The guide will help identify these plants on property you own or manage. It applies to Cook, DuPage, Lake, Kane, Kendall, McHenry, and Will counties in Illinois, but will be useful in nearby areas as well.

The Effort to Catalog and Protect Illinois' Endangered Plants

As many as 30 botanists spent part of the 1987 growing season traipsing through bogs, up bluffs, and down riverbanks trying to determine the status of more than 350 species of plants that a decade ago were officially recognized as rare. The updating was a joint project of the Morton Arboretum and the Illinois Natural History Survey at Urbana. Enjoy this thorough and entertaining 1988 *Chicago Reader* [article](#) about that survey and Illinois' history of identifying and protecting rare plants.

Guest View | Mike Baltz: If it ain't broke, don't fix it

At a recent Carbondale City Council meeting, there was a presentation by the "Shawnee Defenders" to change the Shawnee National Forest to a national park, suggesting, among other things, that a national park would be a boon to local economies. Read about the reasons the professional conservation community is opposed to this proposal in an [opinion piece](#) in *The Southern Illinoisan*.

Best Plant Identification Apps

The right app can help you connect with nature, participate in citizen science projects, and learn which plants are dangerous or invasive. Fourteen *Wirecutter* staffers and their families tested seven apps (all of them available free of charge) across nine states, in both rural and urban locations, using Android and Apple phones. If you simply want an app that will quickly and accurately identify plants, we recommend *PlantNet Plant Identification*. If you want an app that allows you to share your findings with other naturalists (whether they're amateur or professional), we have a pick for you too -- *iNaturalist*. This [NY Times Wirecutter](#) article with recommendations and details about both apps may be behind a paywall for you, but both apps can be seen and downloaded on the Apple App Store or Google Play to try out for yourself.

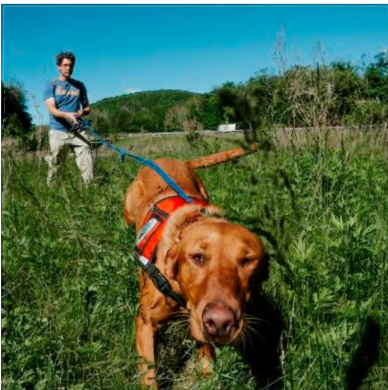
Endangered Beauty: The Orchids of the Chiwaukee-Waukegan Lake Plain

In 2021 the American Society of Botanical Artists sponsored an effort to document the orchids of the Chiwaukee-Waukegan lake plain. Forty-four orchid taxa have been documented from the 22-county Chicago Region and nearly half of those 44 have been found in this 4,000-acre area, which is a wetland of international importance. Read more about the orchids found in this area and enjoy stunning watercolor illustrations by Kathleen Marie Garness on this [webpage](#).

Bison Reintroduction Study Results

A Kansas State University-led study has found that reintroducing bison—a formerly dominant grazer—doubles plant diversity in a tallgrass prairie. The research involves more than 30 years of data collected at the Konza Prairie Biological Station and was recently published in the prestigious journal *Proceedings of the National Academy of Science*, or *PNAS*. The [abstract](#) is available online. Additional information is available in this Science X [article](#).

Conservation Dogs Sniff Out Endangered Orchids



The New York-New Jersey Trail Conference (NYNJTC) [Conservation Dogs Program](#) is seeking a rare, native orchid; small whorled pogonia (*Isotria medeoloides*) is federally listed as threatened and state listed as endangered in New Jersey and New York. The detection dog method is especially powerful when searching for small, cryptic, or sparse targets when humans' sense of sight falls short. A study conducted by Oregon Fish and Wildlife examining the use of dogs to detect a federally threatened plant species concluded that dogs could be valuable in assisting botanists during surveys. Small whorled pogonia will be the 10th species the dogs learn to detect. Read the entire NYNJTC article [online](#).

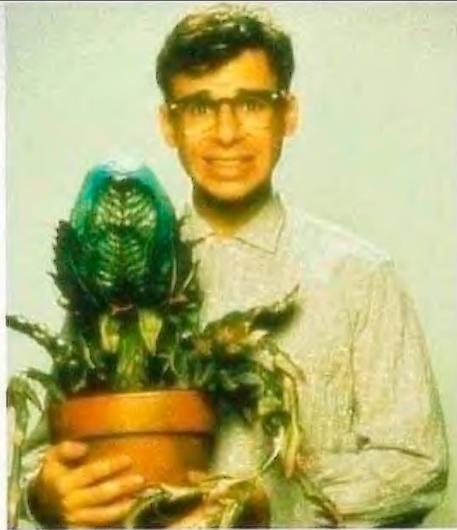
Videos

- *Rare Plants and Common Lookalikes* YouTube video. Many rare plants in Illinois look similar to more common species. This [presentation](#) by Chris Benda discusses the differences between rare plants and their common lookalikes.
- Watch the Zoom recording of the Northeast Chapter of the Illinois Native Plant Society 2022 Annual Meeting. Passcode %Z8Xt6HK is required to access the [recording](#).
- *Patterns of Anthropogenic Fire Within the Midwestern Tallgrass Prairie*, a Vimeo [presentation](#) by botanist William McClain, now retired as Illinois Department of Resources Natural Areas Program

Manager. Bill has long researched this topic, studying fire data in written accounts by reading old letters, historic books, and manuscripts over a seven state area.

- Welcome [Video](#) at the Rothrock Sedge Symposium, May 2022, by Dr. Robert H. Mohlenbrock (SIU emeritus).

Botany Humor



In reality, plants are actually farming us, by giving us oxygen daily, until we all eventually decompose so they can consume us.

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Field thistle

(*Cirsium discolor*)

Photo: Caitlin Satalic

The Harbinger Fall 2022

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